Oakland ARTCC Airspace Configuration

Federal Aviation Administration

Control Responsibility for 18.8 Million Square

Miles of Airspace:

- 18.7 Million Square Miles Oceanic
- 140,000 Square Miles Domestic

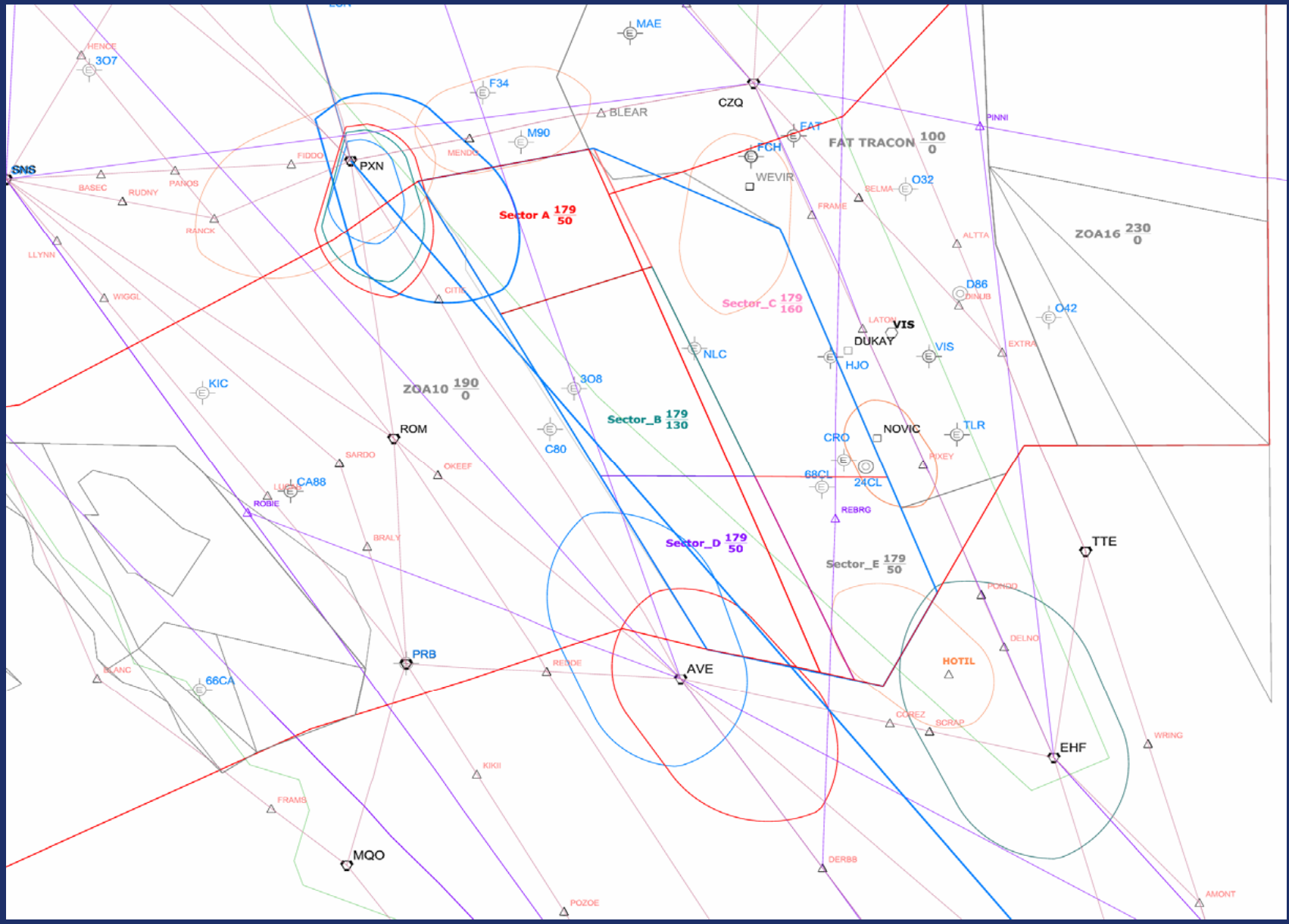
Within Oakland Center's oceanic boundaries

- Largest oceanic airspace in the world controlled by one facility - 9.56% of world's surface
- Interface with 21 different foreign and domestic facilities

Sector Design and Analysis Tool (SDAT)

Functions

- **Support Tool**
  - Design
  - Validate continuity
  - Ensure conformity
  - Measure performance
  - Real time data measurement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Sector_C 179 160
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Sector_B 179 130
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CORIZ
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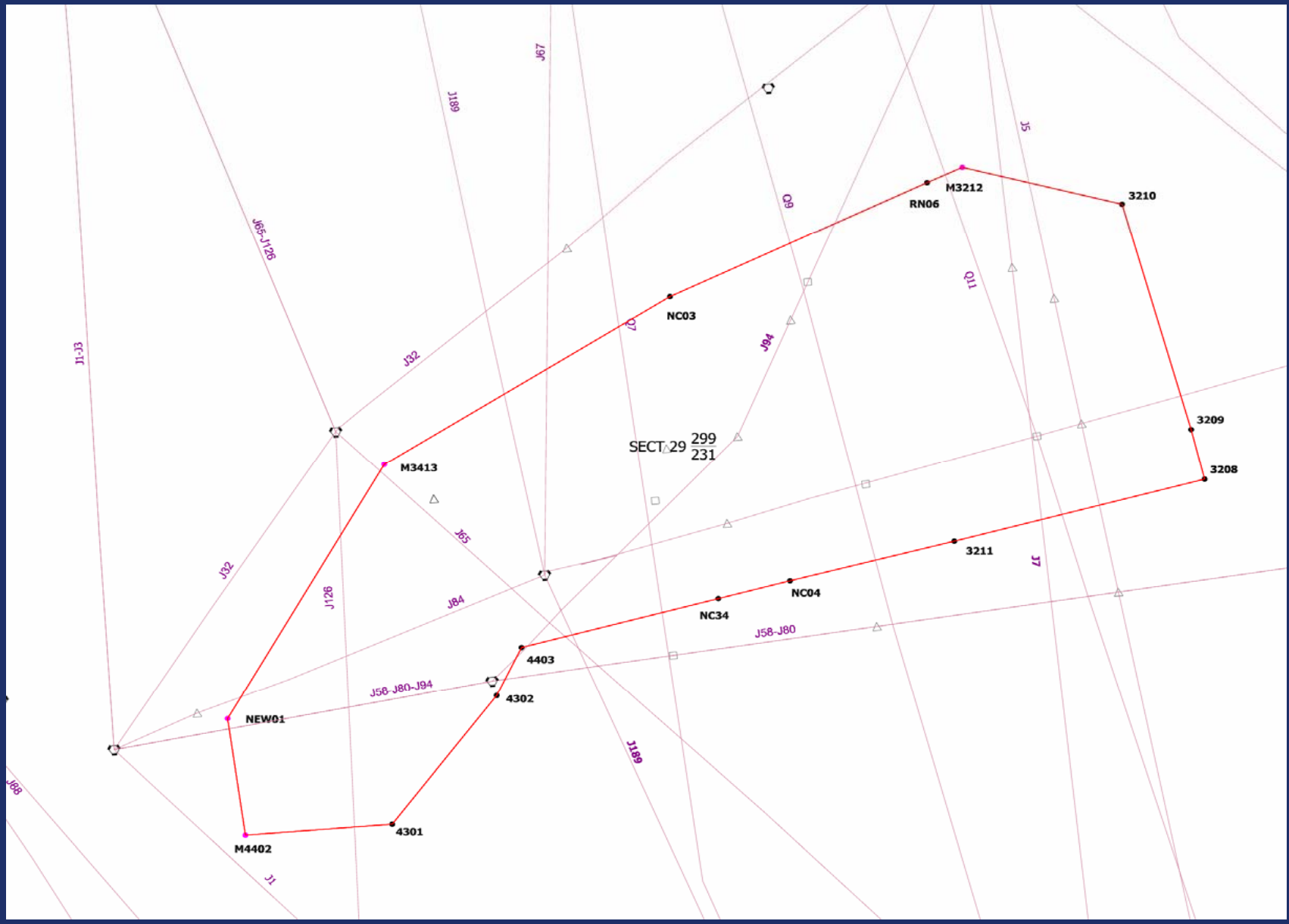
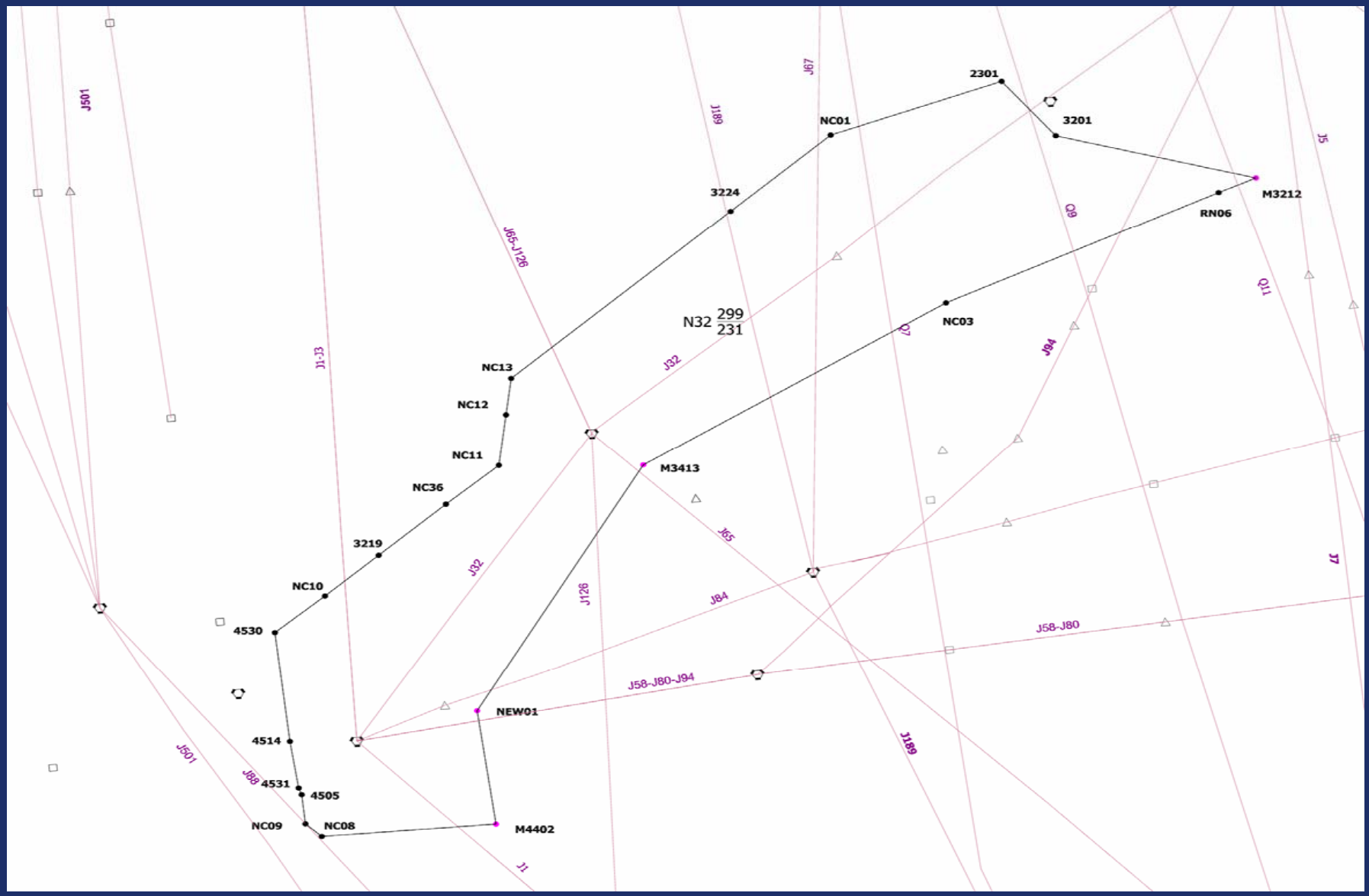
KIKII
FRAMS
MQO
DERBB
POZOE
AMONT

- **Design Tool**
  - Coverage system wide from terminal to terminal
  - Three-dimensional visualization of airspace and traffic
  - Metrics for airspace and traffic flow
  - Redesign airspace, flows and traffic
  - Import and export most FAA aeronautical data formats
  - Integrate SDAT Enterprise results with other models and tools
  - Project management workflow embedded into SDAT Enterprise
  - Access to FAA-wide data and analysis services
  - Tool of choice for National Airspace Redesign initiatives



Sector 29

Federal Aviation Administration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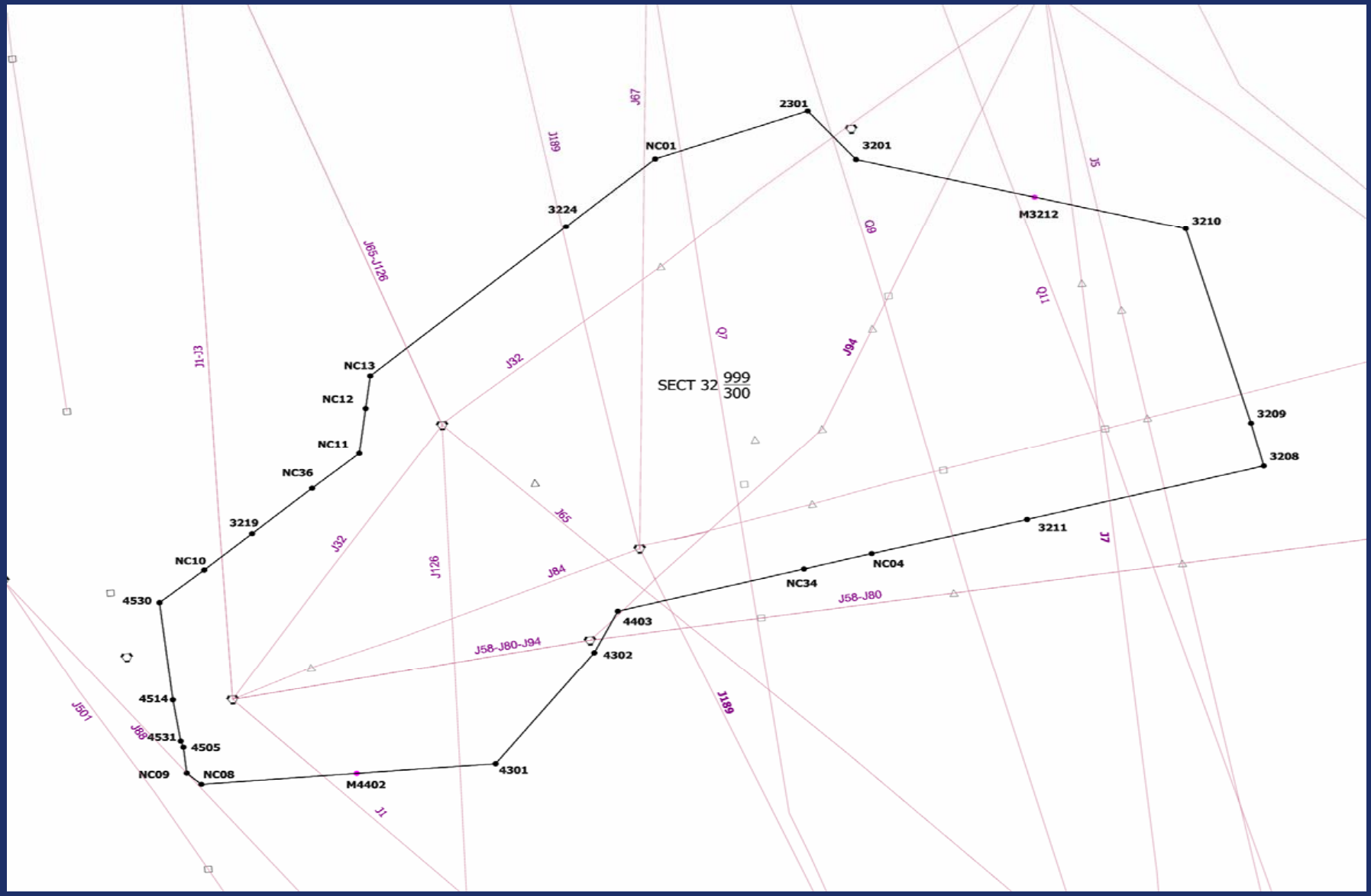
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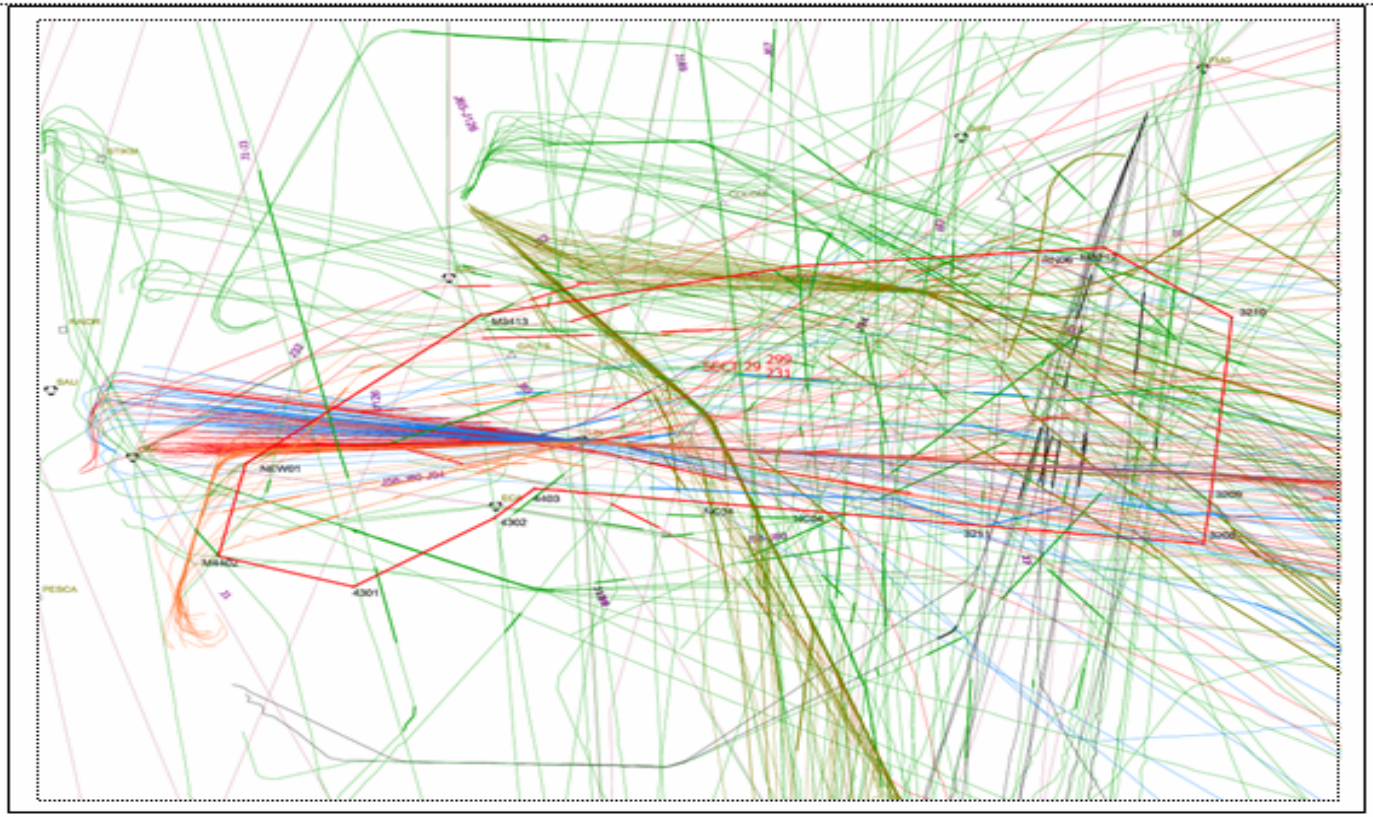
(1) **Sector 29 Traffic Flows.**



(2) **Sector 29 SDAT Traffic Analyses.** (Data extracted from 90th percentile day, July 20, 2006)

Sector	Flight count	Percent climbing	Percent descending	Percent cruising	Maximum duration (HH:MM:SS)	Average duration (HH:MM:SS)	Peak density	Average density	Average throughput (flights/hr)
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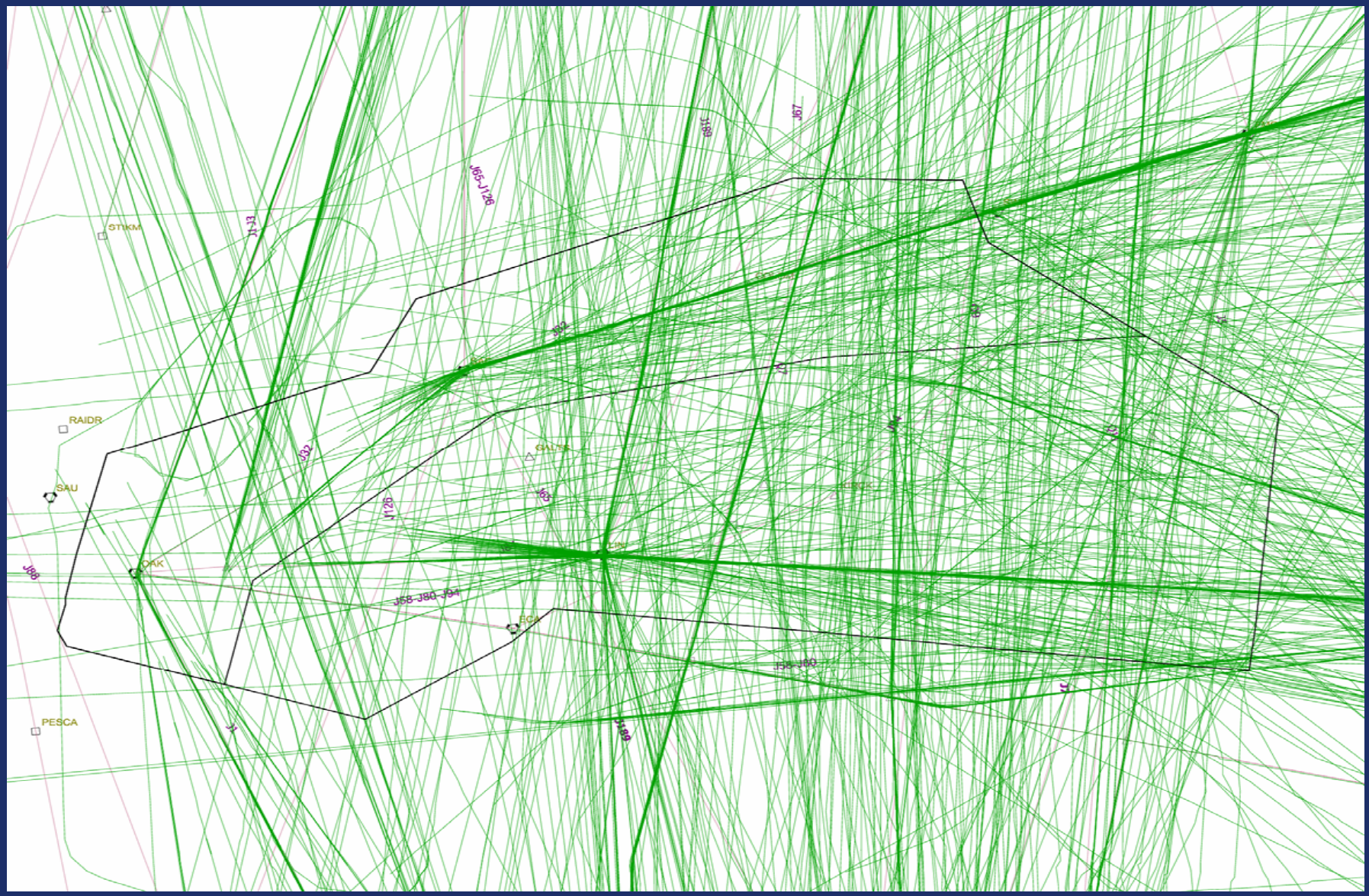
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J58-J80
J4
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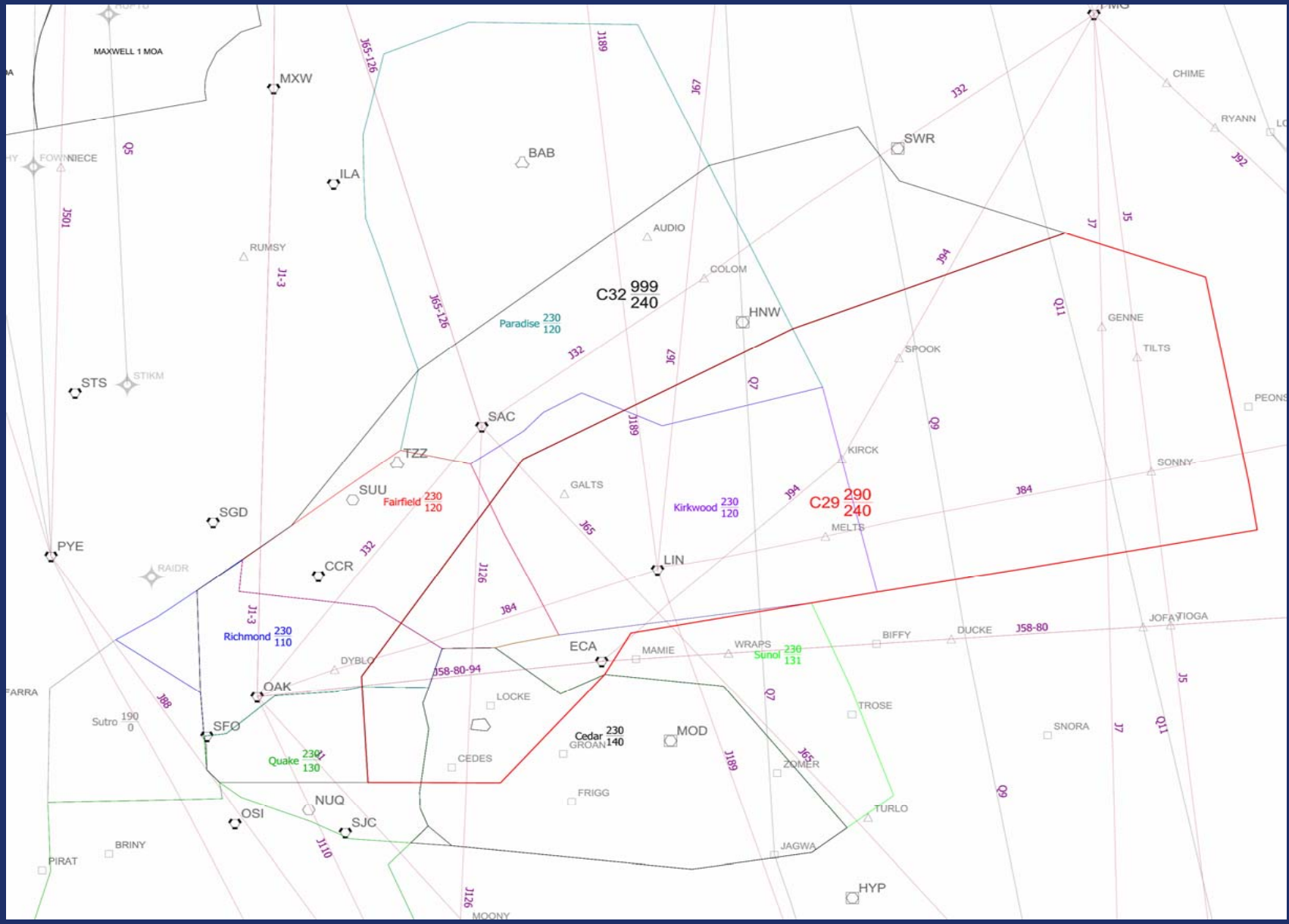


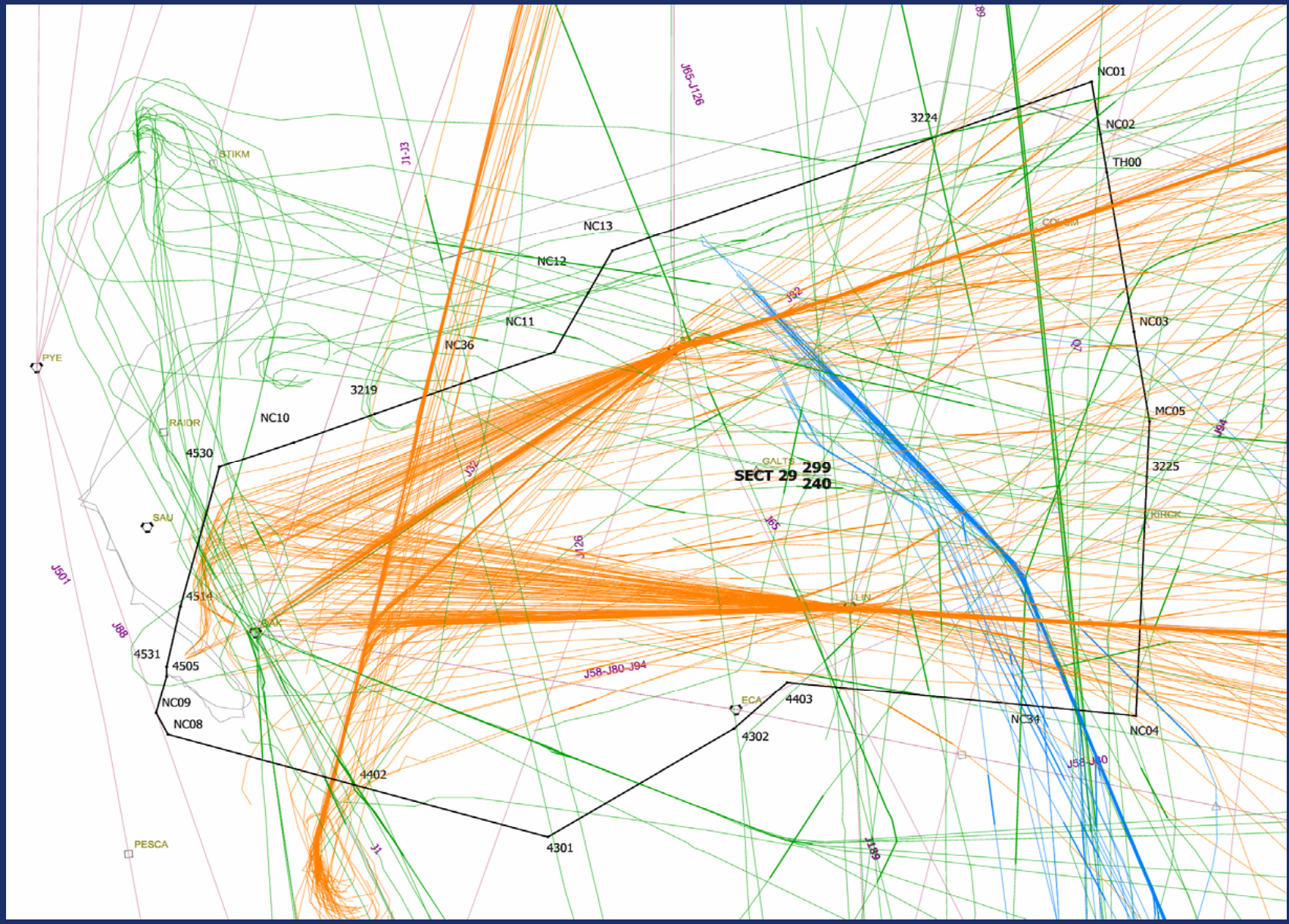
Sector 29

Federal Aviation Administration

- **Analysis Tool**
  - Provides Users The Ability To:
    - Display ACES and ETMS airspace tracks
    - Display/Edit SAR, ETMS, and ARTS and flight plans
    - Display NASR and ACES routing information
    - Animate traffic
    - Calculate boundary crossings statistics on flights or sections.
    - Create and Modify airspace
    - Modify traffic
    - Create and modify fixes, airports, NAVAIDs, and routes
    - Identify traffic crossings and calculate statistics on them

High-end Analysis And Visualization

- SDAT provides multi-facility display and analysis of the interactions between airspace and traffic. The system includes full support for FAA data sources, project management and airspace modification/design.
- SDAT performs analysis of potential conflicts, traffic density and traffic loading in air traffic control sectors, military airspace and other airspace volumes.
- The Sector Design and Analysis Tool runs on a PC workstation. The application suite includes the main SDAT program, air traffic familiarization tools, a flight plan simulation engine and portals to FAA data and analysis services.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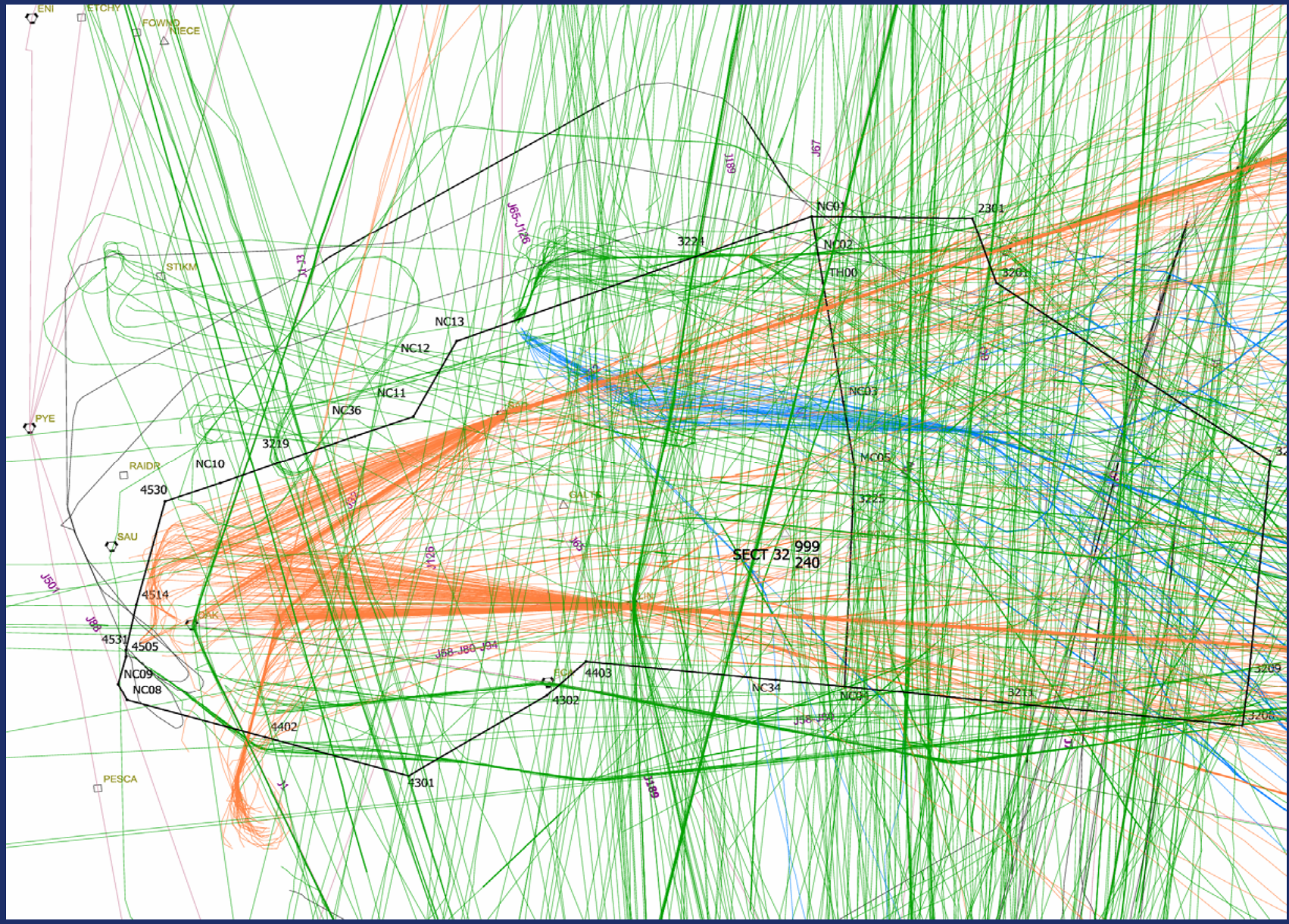
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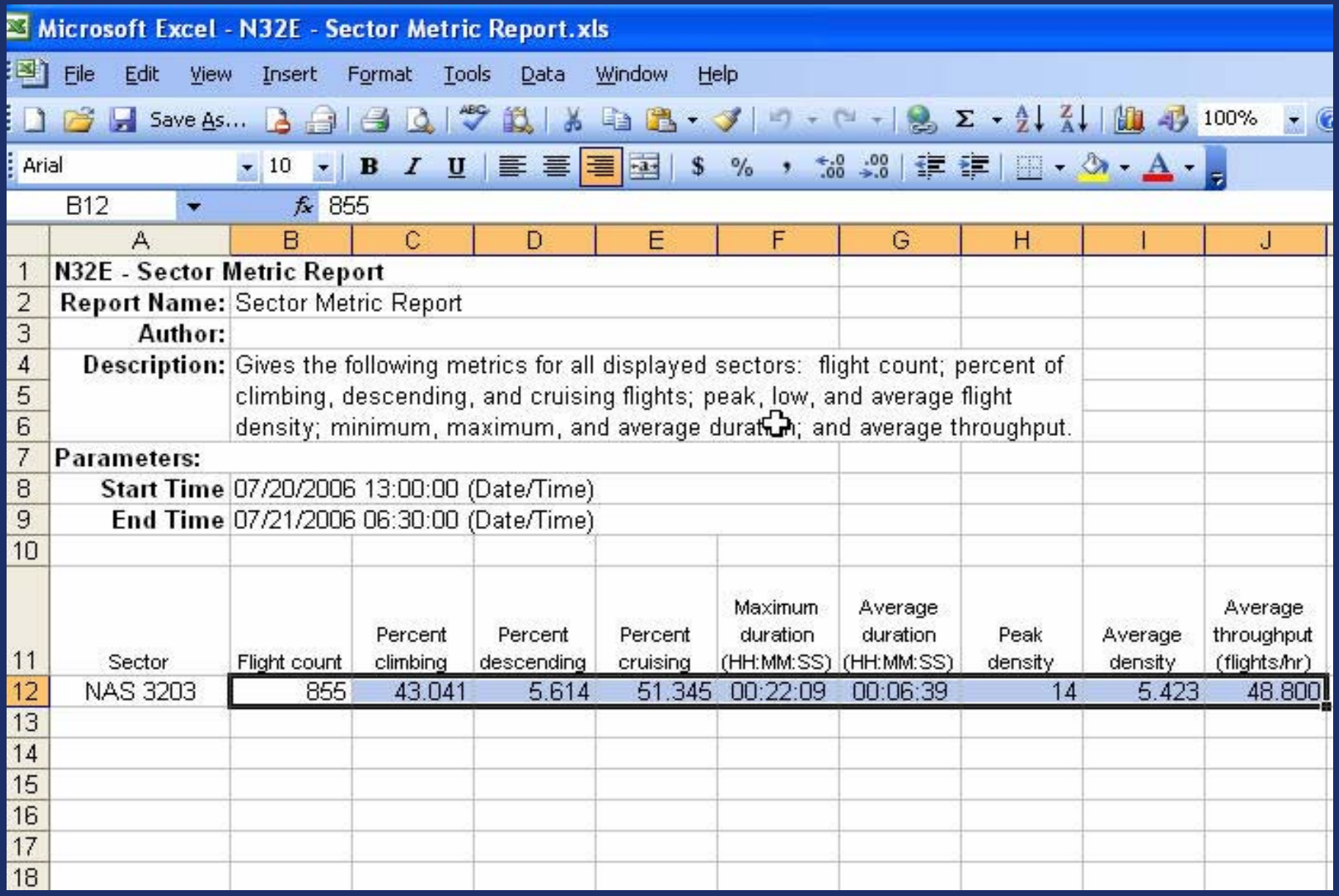

	A	B	C	D	E	F	G	H	I	J
1	**N32E - Sector Metric Report**									
2	**Report Name:**	Sector Metric Report								
3	**Author:**									
4	**Description:**	Gives the following metrics for all displayed sectors: flight count; percent of								
5		climbing, descending, and cruising flights; peak, low, and average flight								
6		density; minimum, maximum, and average duration; and average throughput.								
7	**Parameters:**									
8	**Start Time**	07/20/2006 13:00:00 (Date/Time)								
9	**End Time**	07/21/2006 06:30:00 (Date/Time)								
10										
11	Sector	Flight count	Percent climbing	Percent descending	Percent cruising	Maximum duration (HH:MM:SS)	Average duration (HH:MM:SS)	Peak density	Average density	Average throughput (flights/hr)
12	NAS 3203	855	43.041	5.614	51.345	00:22:09	00:06:39	14	5.423	48.800
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